NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

PEST MANAGEMENT

(Acre)
CODE 595

DEFINITION

Managing agricultural pest infestations (including weeds, insects, and disease) to reduce adverse effects on plant growth, crop production and environmental resources.

PURPOSES

To develop a pest management program that is both consistent with selected crop production goals and is environmentally acceptable.

CONDITION WHERE PRACTICE APPLIES

On cropland, pastureland and hayland where pest control is needed.

On lands within ground water and/or surface water concern areas where pest control is needed.

All pest management activities shall be evaluated to determine the effects on pests, resources, and the environment.

All pest management activities involving chemical pest control shall be evaluated using **Soil/Pesticide Interaction Rating Matrix** and **PESTICIDE WORKSHEET**, contained in Part 11.P4 of the Washington State Water Quality Guide for all chemical controls proposed. In lieu of pesticide worksheets, the **WRAP (Water Quality Risk Analysis for Alternative Pesticides (Program** or **the FOCS Pesticide Screening Module** may be used.

Where the above pesticide screening method indicates a **High** overall rating potential, further analysis shall be done to determine if it is feasible to apply chemicals with less potential environmental damage. Site vulnerability must be evaluated with regard to ground and surface water.

Leaching Index (LI) worksheets contained in Part II.N of the **Washington Water Quality Guide** shall be completed for all pesticides identified with **High or Medium** overall leaching potential and planned to be used on irrigated ground, annually cropped ground, or in areas of ground water concerns.

Integrated pest management (IPM) principles will be incorporated, as appropriate into all pest management activities. These principles include: beneficial and achievable crop rotations, selection of pest resistant crop varieties, or adjustment in planting dates to help control weed, insect, and disease problems. Mechanical cultivation, biological, or chemical control methods, or a combination of methods will also be considered.

Pest management activities will consider target pest(s), and life cycle period(s) when they are most vulnerable to control. In addition, the effects of adequate plant nutrients, soil moisture, humidity at time of application, natural precipitation periods, favorable pH, and site soils need to be considered. These influence plant vigor and pest practice control effectiveness. Considerations will also include threshold levels of pest concentrations (based on field scouting) in relation to potential losses. Spot treatment, such as hand weeding or spot spraying versus full field treatment, need to be considered.

CONSIDERATIONS

Factors that influence ground water vulnerability should be considered such as depth to water table or perched water table if it exists; recharge areas; aquifer media or material; soil media or material; topography and landform; hydraulic

Conservation practice standards are reviewed periodically, and updated if needed. To obtain the current version of this standard, contact the Natural Resources Conservation Service

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conductivity of the aquifer; existence and/or classification of a sole source aquifer.

Factors that incluence surface water vulnerability should be considered such as landform; soil infiltration, percolation, texture, and erosion characteristics; topography and slope; distance to water bodies or streams; climate, including rainfall intensity and distribution; receiving water body use classification.

Irrigation applications should be based on soil and plant water needs, within the allowable soil intake rate, and at volumes within the available soil water holding capacity.

PLANS AND SPECIFICATIONS

Plans and specifications will be developed on an individual basis to address the environmental concerns at that location while addressing the pest problems of the current crop management systems. Individual pest management specifications will be developed using the Site-Specific 595 Specifications form attached to the Pest Management Specifications or a similar form that conveys the same information.

Specification parameters will be developed using appropriate publications recognized for use in Washington State by Washington State University Cooperative Extension; e.g., PNM Weed Control Handbook cited in the reference section. Chemical use and the rate(s) of application, shall be based on the target pest(s), level of crop tolerance, and effectiveness rating for the target pest(s), in accordance with these publications and according to the label.

OPERATION AND MAINTENANCE

Operation, safety, and maintenance of pesticides and equipment (chemigation system) is governed and regulated by the Washington Department of Agriculture.

All pesticide application equipment will be maintained in good working condition. Calibration of equipment should be conducted before the mixing and loading of pesticides, and at a minimum, before each season of application or when a change in pesticide or application rate is made.
The use of protective clothing, safety masks, face shields, and gloves will be used as required by State laws to avoid exposure and contamination from gases and chemicals. When protective clothing is not required or practical, special attention should be paid to other protective measures.

Long duration exposure to toxic chemicals by an individual should be avoided. Employe safety and health considerations should include adequate emergency wash stations and safety health plans.

Safety health plans should be posted in predominant locations. These should include emergency treatment procedures along with the location of emergency treatment centers. Notices should be posted in appropriate languages for full comprehension by all employees.

Treated fields that require posting will be signed according to label directions or applicable Federal, State, or local regulations. Field re-entry should not occur prior to established recommended time.

Chemical storage facilities must be designed or located such that weather conditions or accidental spills or leakage will not result in undesirable effects on the soil, water, air or plants. Adequate safety warning signs should be posted on or around chemical storage facilities.

Pesticides should be sotred in their original containers in environmentally safe and secured locations. Storage should include proper ventilation and control for any potential chemical leakage that may contaminate water sources or be of detriment to living creatures. Considerations should include container exposure dangers to sunlight and weather.

A written plan should be posted in the mixing area. The plan should contain safety precautions and actions to be taken by employees in response to the various chemicals in use. The plan should include the local contact number for the Department of Ecology spill response team.

The location and design of proper mixing and rinsing equipment stations, relative to potential spills and their effects on contamination of ground surface water sources, should be

considered. Concrete mixing pads with sills are recommended.

Wash water and waste products should be disposed of in a safe manner. Rinse water from equipment and containers should be used in the current batch or stored and used in the following batch mixture.

Avoid mixing of chemicals and cleaning of equipment on highly permeable soils, near wells, high runoff areas, ponds, lakes, and streams. Extreme care should be taken when mixing or applying chemicals. Recommended safe distance is at least a hundred feet from wells, ponds or streams, downslope if possible.

Irrigation application systems must be well maintained and operated such that runoff or deep percolation is minimized. Guidance on irrigation components is contained in the State of Washington Irrigation Guide4 and various Washington State Cooperative Extension bulletins identified in Part I.A of the Washington State Water Quality Guide. Application of pesticides must minimize potential off-site environmental damage, including leaching.